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T H E U S E O F C O L O R I N R E L I G I O U S P A G E A N T R Y

By

L I L L I A N D U N L A P G E O R G E

(A. B. BATES, 1921)

submitted in partial fulfillment of the
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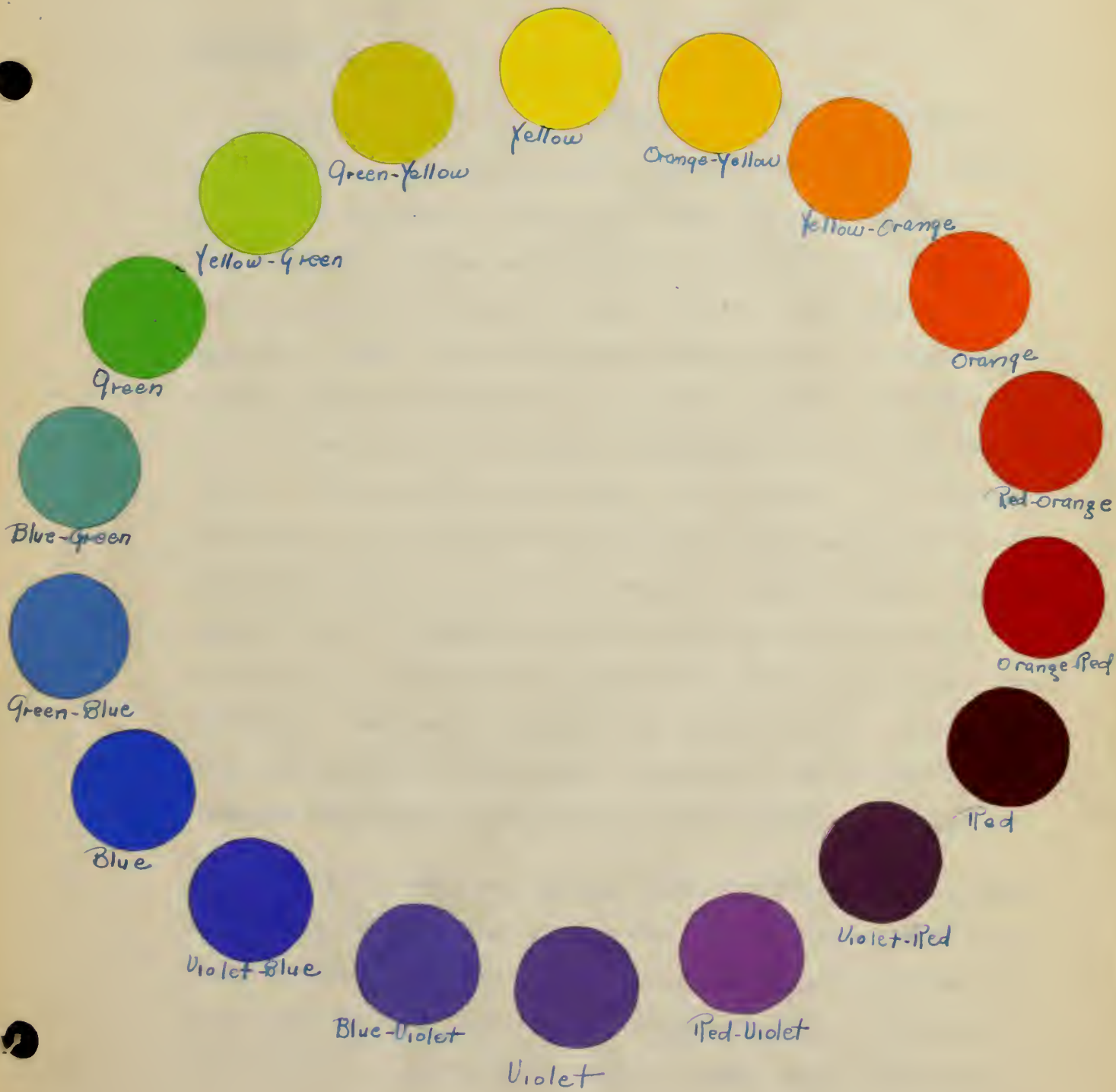

Chart of Spectral Colors

INTRODUCTION

The director of religious pageantry who must often be his own scenic artist, costume designer, and lighting expert finds himself face to face with a whole army of problems, many of which concern the proper and effective use of color. What background will most clearly indicate the mood of the pageant? Shall decoration, historical value, or symbolic meaning govern one's choice of a color scheme? How shall one so costume the characters that harmony, not a wild discord of clashing and garish hues, will result? How shall characters be so garbed that important roles may stand forth distinctly and minor parts be properly subordinated? What combination of lights will best convey the atmosphere of the production? How shall the time of day be clearly shown thru lighting? And so one might go on indefinitely! And with each new production these same questions arise afresh to be answered according to the needs of the pageant at hand.

Many directors, especially those far from large centers where definite training courses are not available, must gain their knowledge thru the trial-and error method which at best is a long, painful, and disheartening process. The writer of this paper has attempted to bring together such definitions,

facts, and principles concerning color in its relation to dramatic production, both past and present, that the way of the director(unlike that of the transgressor) may not be hard.

THE SCIENCE OF COLOR

First of all, let us seek a definition of color. Webster says it is "a property of light, in consequence of which differences in the appearance of objects are apprehended by the vision". Again, it is "any hue or tint as distinguished from white". An experiment of our own will show us more clearly than the words of another the source of color. If a prism or crystal is held over a white surface in such position that the sunlight may pass thru the glass, the apparently white light is broken up and colors appear. These colors, violet, blue, green, yellow, orange, and red, are called the spectrum. The rainbow is formed by the same process as that of the sunlight and the crystal. Drops of rain breaking up the light which passes thru them throw a great vari-colored arch across the sky. The word "hue" is used as synonymous with color to indicate the kind or type of color in question; as, for example, red is one hue, blue is another. A tint is lighter than the color as it appears in the spectrum and is obtained by the addition of white. A shade is darker than the spectrum hue and is obtained by the

addition of black.

Some objects absorb nearly all the light they receive. Others absorb part of the light and throw off, or reflect, the rest. A red rose takes up all the colors in light except red which it throws off. The dandelion reflects only the yellow portion of light. So the color we admire in an object is that for which the object has no use.

Color in light and color in pigments differ somewhat since all pigments or paints contain a certain amount of sediment which changes the value of any given hue. From this point to the section on lighting, color as it refers to pigments will be under discussion.

Primary colors are those from which all others may be made. Various colors have been suggested as the primaries, but the Newton-Brewster theory of red, yellow, and blue as the fundamental hues has been found most successful from a practical standpoint. From these three, all other combinations of shades, tints, and hues are possible. Secondary colors are those resulting from the mixture of two primaries. Thus, red and yellow combine to make orange; blue and yellow, to make green; and blue and red, to make violet.

Red, yellow, and orange are called warm colors. Violet,

blue, and green are known as cool colors. Red and orange give the greatest impression of warmth. Blue and blue-purple are the coldest. Green may be made to seem warm by the addition of yellow and cool by the addition of blue. Since warm colors appear larger and nearer to the observer they are often called advancing. Cool colors, appearing smaller and further away, are known also as receding. Beside these six colors already mentioned, there are intermediary combinations, as blue-green, green-yellow, yellow-orange, orange-red, red-violet, violet-blue. These, in turn, may be mixed and re-mixed to form a thousand tints, shades and hues.

(1) Louis Weinberg defines complementary colors as "two colors which, juxtaposed, will produce a balanced stimulation of retinal nerve-endings and if mixed will sum up as white or grayed light". The combinations which thus form "white or grayed light" are red and green, orange and blue, and yellow and violet. The accompanying color chart illustrates the spectrum colors and their relation to each other. The complement of any color on the chart will be found to lie directly opposite. Thus, the complement of yellow-orange is violet-blue; that of blue-green is orange-red. It will be noted that black, white, and gray are not indicated. Black is the absence of color.

(1) WEINBERG, COLOR IN EVERYDAY LIFE, p. 214

White is a combination of all colors Gray is the neutral result of a mixture of pigments.

Colors differ from one another in three respects, namely, in hue, in value, and in intensity. We have already defined hue as the kind or type of color as red, blue, or green. Value does not refer to the amount of blue in blue color but to the amount of light reflected by it. To quote (1) Weinberg again, "Value in color may be defined as being a quantitative element in color expressive of the amount of light which it reflects". Thus, if, while one wears a blue gown in a room flooded by sunlight, the shades are drawn, the gown grows darker or lower in value because it is reflecting less light. If one then turns upon the dress an artificial light more powerful than that of the out-of-doors, the blue becomes lighter or higher in value because more light than formerly is now being reflected. It has been estimated that we can differentiate at least one hundred variations in the value of any given hue. The relative values of the spectrum colors are here given:

Yellow -------	High light
Yellow-orange, Yellow-green -----	Light
Orange, Green -------	Low light
Red-orange, Blue-green -----	Middle
Red, Blue -------	High Dark
Red-violet, Blue-violet -----	Dark
Violet -------	Low Dark

(1) Weinberg, COLOR IN EVERYDAY LIFE, p. 188

Any color appears stronger against white, paler against black, and inconspicuous against a gray of its own value. A light value increases the size of an object while a dark value decreases it. Black and red absorb colors seen against them. Black also unifies and harmonizes colors when a number of bright hues are used together. White on a black ground is less conspicuous than black on white for white reflects light while black absorbs it. A strong value always calls attention to the silhouette of an object.

(1) Here we may mention what Weinberg calls "aerial perspective"---"Objects lighter than the atmosphere tend to grow darker as they recede, objects darker than the atmosphere tend to grow lighter". Thus, in designing a landscape set where the illusion of great distance is desired, the bright yellow-green fields of the foreground will be made darker in the middle distance and dark tree trunks will become lighter and lighter as they draw nearer the horizon.

Grays differ from one another only in value. Light gray beside a dark color makes the latter seem lighter. Dark gray beside a light color makes it appear darker. Dark gray used with dark colors muddies them because of the closeness in value. For the same reason, light gray confuses light colors. Colors of high value combine well with

(1) Weinberg, COLOR IN EVERYDAY LIFE, p. 194

either dark gray or black.

By intensity is meant the brilliancy of a color or the speed with which it travels to the eye. Yellow travels twelve times faster than violet, so is much more intense than the latter. When a color has had enough of its complement mixed with it to be half as bright as it can be and is therefore halfway between intensity and neutral gray, it is designated as $\frac{1}{2}$N or $\frac{1}{2}$I. Halfway between the full or spectrum color and $\frac{1}{2}$N is $\frac{1}{4}$N or $\frac{3}{4}$I. Halfway between $\frac{1}{2}$N and neutrality is $\frac{1}{4}$I or $\frac{3}{4}$N. $\frac{1}{4}$N, $\frac{1}{2}$N, $\frac{3}{4}$N, are ordinarily employed to denote degree of intensity.

Color may be made to appear more intense in several ways:

1. By placing it next its complement; as, red next green, blue next orange, yellow next violet.

2. By combining with a neutral color such as black or white.

3. By repeating near it a large amount of the same color in a lower intensity.

4. By repeating in some other part of the composition a small note of the same color in a brighter intensity.

Color will appear less intense if a large amount of

very bright hue is combined with a dull or delicate one, provided these are of the same or very similar hue. Soft pink combined with deep rose in this way will therefore seem even softer and duller. Combining a bright color with a very dull color of the same value, but slightly different in hue, will lessen the intensity of the bright color. For example, a yellow gown worn against a pinkish tan background will be neutralized by the yellow in the tan.

Pure colors make dull ones lose what little purity they have and tend to gray them unless the pure and the dull colors are complementaries. In pure and dull areas of the same hue, the pure area grays the dull by throwing its complementary color into it. Two pure areas of different hue, if they are not complementaries, have a tendency to dull each other thru the interaction of hue. Warm and cool colors intensify each other. Warm colors together lose their force as do cool colors. Interest in color composition is secured thru a balance of warm and cool tones.

Color is not an absolute. It varies, we have seen, according to the light it receives and the colors which surround it. Any hue tends to throw its complement upon any adjacent colors. Thus, blue next white will cause the latter to appear yellowish because blue's complement, orange, has

been thrown upon it. This fact concerning the modification of colors placed beside or upon each other is called the Law of Simultaneous Contrast. Hue, value, purity, warmth, and weight are all affected by the operation of this law. Its results may be briefly summed up as follows:

1. Colors are influenced in darkness or lightness by the darkness or lightness of the colors to which they are adjacent.

2. Colors are influenced in hue and quality of color thru neighboring colors.

3. Colors are influenced in their intensity or purity since two complementary colors seem purer and fuller when juxtaposed or superimposed.

4. Light colors are most striking on black.

5. Dark colors are most striking on white.

6. Dark colors on a dark ground not complementary will seem weak with their edges lost and their pattern vague.

7. The above is true of light colors on a light ground.

8. Bright or pure colors on a dull ground of the same hue or any hue not complementary will deaden the dull color.

The following table shows the effect of each spectrum color upon an adjacent hue:

BLUE makes yellow more intense,
red seem orange,
green seem yellow-green,
violet seem red,
warm gray seem warmer,
cool gray seem warm.

RED makes violet seem indigo,
blue seem green,
blue-green seem more intense,
yellow seem greenish,
orange seem brown,
warm gray seem less warm,
cool gray seem cooler.

GREEN makes violet more intense,
yellow less intense,
red seem red-violet,
blue seem yellow,
orange seem red,
cool gray seem violet.

YELLOW makes green seem blue
orange seem red,
red seem violet,

blue more intense,
cool gray cooler.

BLUE-GREEN makes red more intense,
yellow seem orange,
orange seem red-orange,
warm gray warmer,
cool gray warm.

VIOLET makes green more intense,
yellow seem yellow-green,
red seem brownish,
orange seem yellowish,
blue seem green,
grays seem greenish.

Another important principle in the application of color (1) is the "Law of Areas". Lemos thus expresses it: "The smaller the ares, the brighter the color; the larger the area, the grayer or softer the color". So, in a garden scene or in a costume group, a comparatively small amount of red, yellow, and orange will balance a far larger areas of blue, violet, and green.

All our study of color tends towards one result---the (2) achievement of harmony. Again we quote Weinberg, "Color

(1) Lemos, APPLIED ART, p. 274

(2) Weinberg, COLOR IN EVERYDAY LIFE, pp. 239, 242-3

harmony refers to the pleasure which the eye and mind take in certain combinations of hues, whether in nature or art". "Color harmony is much more a matter of the arrangement and the organization of the colors employed than is usually suspected." "Color must be well composed in the same sense that the sounds in the symphony must be well composed." Harmony is "a binding force holding together contrasting elements and interests".

In working out color plots, one finds that the effective "arrangement and organization of the colors" may be obtained in several different ways. One may use the tints, shades, and grayed tones of one color alone, thus producing a monochromatic scheme. Or, he may choose colors which are opposite each other on the color-wheel, as green-blue and red-orange or yellow-green and violet-red. This complementary type of harmony is the most highly contrasting combination one can employ and not always the most pleasing. Analogous harmony is made up of adjacent colors such as red, red-orange, orange-red, orange, yellow-orange. A split complementary contains two analogous colors and the complementary of one of them, as yellow, green-yellow, and red-violet. A double complementary consists of two analogous colors with the complement of each, as green and red,

yellow-green and violet-red. The angles of an equilateral triangle placed over the color-wheel will point to three colors which combine in a triad harmony, as green, orange, and violet or red, yellow, and blue.

Besides the mere choice of colors, rhythm, balance, and proportion are essential factors in the production of a pleasing color scheme. By rhythm is meant that arrangement of colors which gives to the whole composition a feeling of related motion. (1) It is obtained "thru regular repetition, alternation, or a progression of gradual increase or decrease in value, intensity, warmth, weight, or force, thru color gradation, gradation of lines, thru parallelism, (the effect of planes or masses all moving in one direction), thru moving towards a climax". The same color note may be used in full intensity in the costumes of the chief characters, in more subdued touches for minor parts, and in the softest and dullest possible tones for the mob which forms the background for the action. Or, the pageant may open with dull hues, the color becoming gradually more brilliant as the high point of the production is approached.

By balance is meant such arrangement of colors that there is a definite center of interest. This is achieved

(1) Weinberg, COLOR IN EVERYDAY LIFE, p. 246

by symmetrical color spotting (that is, colors in opposition on either side of a central line), colors radiating from a central point or by color so placed in an informal manner that the interest of the beholder is caught and held.

Proportion refers to the amount of one color which shall be used in combination with any other colors. A small amount of brilliant hue is equal to a large area of a dull hue. A little warm color is sufficient for combination with a much greater portion of a cool color.

Obviously, in such a paper as this the science of color can be scarcely touched. For a more detailed study of the practical side of the subject, Chevreul's PRINCIPLES OF HARMONY AND CONTRAST OF COLORS and Weinberg's COLOR IN EVERYDAY LIFE are suggested. The former has many colored plates showing in minute fashion the effect of colors upon one another. Weinberg's book, a much more recent volume, puts most clearly and succinctly in a short space the principles of color arrangement. It is for this reason that Weinberg has been so often quoted in this introductory section.

THE SYMBOLISM OF COLOR

Symbolism in color originated in the contacts of primitive man with nature. He saw that sunlight brought heat and vegetation to the earth. So the yellow of the sun came to signify to him warmth and comfort. Darkness hid terrors and unknown dangers. Blackness, therefore, became the symbol of evil and witchcraft. Green promised spring and so stood for hope. Blue took on divine attributes since it was the color of the sky where dwelt the gods. So thru ignorance and superstition each color came to have its own meaning. Mythology and the uses of the church so established those meanings that today each hue speaks its own message to him who sees it.

(1) According to Fairholt, symbolic colors in Christianity have a triple origin, corresponding to the three epochs in the history of religion; namely, the divine, the consecrated, and the profane. The first of these, found in the Book of Exodus, regulated the hangings of the tabernacle, the costumes of Aaron and the Levites, the ritual of worship, and kindred matters. Later, sculpture and painting were introduced into religion to illustrate its teachings and to decorate its temples. So the consecrated language arose. This continued un-

(1) Luckiesh, THE LANGUAGE OF COLOR, p.

til the Renaissance when it largely disappeared with the evolution of painting from a science to an art. Then began the era when color symbolism was largely banished from the church and the divine and consecrated languages gave way to the profane. In the latter part of the middle ages, the symbolic use of color in church worship became disorganized. (1) According to Luckiesh, the five mystic colors, red, gold, blue, purple, and white, supposed to have been given to Moses by God, were in general use in England until the middle of the sixteenth century. The lack of uniformity in the symbolic use of color in modern times is due, he claims, to the fact that churchmen of today exercise their taste and their fancy which in olden times were subservient to "divine command".

The ecclesiastic employment of the five mystic colors before-mentioned has been called the Sarum use of colors. The term had its origin in Sarum, a small borough in England, now in ruins but dating from the time of the Romans. During the reign of William the Conqueror, the Church of England split into two parties, the conquerors and the conquered. The bishop, whose seat was at Sarum, wishing to preserve uniformity in these rival churches, revived and standardized the use of red, gold, blue, purple, and white. The inves-

(1) Luckiesh, THE LANGUAGE OF COLOR, p.

(1) . tigations of W. H. St. John Hope, however, seem to show that the Sarum rule was confined to Salisbury and that the other dioceses had their own color-sequences. Further discussion of this point will be found in the section on LITURGICAL COLOR.

The colors of vestments, of draperies of the altars, of sanctuary, and of pulpit are often significant. In the Greek church only two colors are used, red being employed at the Lenten season and white at all other times. In the Armenian church, no colors are given special meaning. The Roman sequence consists of white, red, green, violet, and black. White, symbolic of purity, has been used on festivals of angels, of the Virgin, of Christ, of the Saints, and at matrimonial ceremonies. In the Middle Ages, white was generally the Lenten color, not because of its meaning but because it hid from view all other colors in the church. Red is for festivals of the martyred saints and of the Holy Cross. Violet signifies penitence at the Advent and at Lent. Black is used on Good Friday, at funerals, and at memorial services.

Blue has been used in the past by priests at the grave. Here it is emblematic of heaven. It stands for fidelity and divine intelligence in traditions and paintings concerning

(1) TRANSACTIONS OF ST. PAUL'S ECCLESIOLOGICAL SOCIETY, vol. II, p. 258

Christianity. Among the Chinese, white is for mourning though the white used is really a very pale bluish-gray or "moon-color". Red is worn in the marriage service of these people and yellow, as in other parts of the Orient, is a sacred color. Some students of the history of color think that with the advent of Christianity yellow (and, to some extent, red and orange) fell into disfavor as ecclesiastical colors and the colder hues were encouraged since these latter were less joyous and more symbolic of dignity, purity, and submissiveness. Then, yellow became a mark of jealousy and shame. Other warm colors, notably red, shared in this distinction. Yellow when representing gold stands for constancy, wisdom, dignity, light, and glory, especially in connection with the great religious characters. Otherwise, it is uncomplimentary. For example, in France in the sixteenth century, the doors of felons, traitors and other criminals were painted yellow. In old paintings, Judas wears a yellow robe.

Black is a symbol of spiritual darkness. It is associated with witchcraft and diabolical power, hence, the expression, black art. Most allusions to black are uncomplimentary. It signifies woe, horror, wickedness, as opposed to the chastity of white. Black and white as worn by the Dominican Friars

means humility and purity. Usually the combination is a most sophisticated one. Gray, the mean between white and black, represents sadness and humility.

The Trinity is symbolized by red for divine love, blue for truth and constancy, and gold or yellow for divine glory. Gold and silver covering the cross, glory, aureole, and nimbus stand for brilliancy, light, sanctity. The rose and the lily are both dedicated to the Virgin Mary, the former for love, the latter for purity. Mary is traditionally gowned in red and blue for love and constancy. Passion and suffering, usually in relation to truth, are signified by violet or amethyst. Mary Magdalene, the Madonna, and the Christ are sometimes portrayed in violet after the Resurrection.

In heraldry, green was the color of madmen; black or sable, prudence or wisdom with constancy in adversity; white, purity and innocence; red or gules, love; gold or or (considered a mixture of red and white), the most noble qualities for gold is the color of the sun and the king of metals; purple, nobility, dignity, tranquillity.

According to Cassiodorus, there were in the ancient world four highly mystic colors; green for spring, red for

summer, white for autumn, and blue for winter.

In China from 2000 B. C. to 200 A. D. five colors had symbolic significance. Red belonged to fire, black to water, green to wood, white to metal, and yellow to the earth. The first four corresponded respectively to the south, the north, the east, and the west.

(1) The following table gives in somewhat complete form the ecclesiastical and secular significations of the various colors:

CONSTRUCTIVE	COLOR	DESTRUCTIVE
ECCLESIASTICAL	RED	ECCLESIASTICAL
Love		Blood
Enthusiasm		Fire
Holy Spirit		Martyrdom
Creative Power		Hatred
Royalty		Punishment
OTHER		OTHER
Health		Danger
Warmth		Passion
Bravery		Shame
Patriotism		Falsehood

(1) Overton, THE DRAMA IN EDUCATION, pp. 177-182

Strength	Evil Spirits
Beauty	Restlessness
Excitement	

YELLOW

ECCLESIASTICAL	ECCLESIASTICAL
Sun	Shame
Splendor	Treachery
Goodness of God	
Wisdom of God	
Marriage	
Truthfulness	
Power	
Halo	
OTHER	OTHER
Gaiety	Gaudiness
Royalty	Sensationalism
Light	Indecency
Harvest	Decay
Aurora	
Fame	
Power	

ORANGE

ECCLESIASTICAL

(Similar to yellow)

Warmth

Cheer

Hospitality

Benevolence

Flame

Marriage

Harvest

ECCLESIASTICAL

GREEN

ECCLESIASTICAL

Fertility

Hope

Life

Immortality

Victory

OTHER

Memory

Spring

Youth

Sea

Vigor

Life

OTHER

Envy

Inexperience

Plenty

Peace

Prosperity

BLUE

ECCLESIASTICAL	ECCLESIASTICAL
Heaven	
Sky	
Truth	
Fidelity	
Peace	
Piety	
Justice	
Sincerity	
OTHER	OTHER
Conscience	(Dark dull blue)
Dignity	Mystery
Intelligence	Gloom
Aristocracy	Night
Poetry	Evil Imagination
Minerva	Storm
Blue-eyed Athena	Thunder
Blue mantle of Diana	Cold
Blue and silver rose	

VIOLET

ECCLESIASTICAL	ECCLESIASTICAL
Penitence	Suffering
	Passion
OTHER	OTHER
Friendship	Dejection
Thoughts	Shadow

PURPLE

ECCLESIASTICAL	ECCLESIASTICAL
Royalty	
Martyrdom	
Loyalty	
Love of Truth	
Dignity of Justice	
OTHER	OTHER
Wine	State of mourning
Jupiter's Royal Robe	Shadows
	Enmity
	Inactivity

WHITE

ECCLESIASTICAL	ECCLESIASTICAL
Light	
Purity	
Innocence	

Virginity

Joy

Triumph

Faith

OTHER

Delicacy

Femininity

Integrity

Manhood

White flag of surrender

White shield of untried manhood

OTHER

White feather of timidity

Mourning

Ghosts

GRAY

ECCLESIASTICAL

Humility

ECCLESIASTICAL

Sorrow

Tribulation

Self-renunciation

OTHER

Age, mature judgment

Quietude

Distance

Simplicity

OTHER

Dreariness

Storm

Twilight

BLACK

ECCLESIASTICAL

ECCLESIASTICAL

Mourning

Wickedness

Death

OTHER

Night

Peace

Solitude

Black art

Witchcraft

Despair

Harlot

Ignorance

LITURGICAL COLOR

(1) "Color has always had an important place as an influence on man. A color divides the human race; a color has often been the cause of wars and bloodshed; a color has been the safety of a family from pillage and death (Josh. II: 18, 19, and 21); and the beauty of color has as much effect upon man as almost any beauty which nature or art can bring before him. It is an influence which comes from a higher source than himself. God has been pleased to use color richly---first, in His own creation; secondly, in His revelation of the comeliness and beauty to be bestowed upon his worship, and various and gorgeous is the coloring commanded in the pattern seen and given to Moses in the mount for use in the preparation of the details of the Worship of the Tabernacle.

"And Christianity would be untrue to herself as the Sanctifier of all Art and Comeliness if she were to despise this influence of color in her worship and surroundings. She teaches men and through his eye can be reached those inner capabilities which we call impression, and which are especially ready to be drawn upwards and helped onwards by the surroundings of the circumstances in which they are called forth." With this introduction, James Baden Powell

(1) TRANSACTIONS OF ST. PAUL'S ECCLESIOLOGICAL SOCIETY, vol. I, p. 89

proceeds to set forth the results of his research into the history of liturgical color.

Like Fairholt and Luckiesh, he is convinced that symbolic color in worship had its beginnings in the five colors, red, blue, gold, purple, and white, given by God to the Levites for the glorification of their tabernacle. He quotes
(1) St. Gregory who, in the sixth century, said that the priest is "vested so that he may be ever armed both against adversity and prosperity by the adornment of the virtues" in a garment "of gold, blue, purple, scarlet, double-dyed, and white that it may be shown with what variety of virtues the
(2) Priest should be resplendent". From the eighth century come the words of the Venerable Bede: "All vestments are made of gold and precious colors because nothing base or mean ought to appear on the person orin his work----from the gold the knowledge of wisdom principally shineth forth; to gold, blue is added resplendent with the blue of heaven, to signify that all knowledge gained by the understanding may contribute to raise him, not to earthly honors, but to the love of heavenly things.-----By the purple color can be signified the very shedding of the blood."

Powell claims that the Mosaic colors were prominent until the twelfth century when certain circumstances and customs

(1) TRANSACTIONS OF ST. PAUL'S ECCLESIOLOGICAL SOCIETY, vol. I, p. 89

(2) IBID, p. 89

gradually brought about the introduction of other colors into the church service. The first of these reasons lay in the fact that looms on the continent were weaving beautiful brocades. Naturally, the richest of these were sought and secured for the church, regardless of their exact colorings. Again, the custom of presenting a funeral pall to the clergy on the death of a relative was responsible for the addition of garments of other hues. The more wealthy the family, the more gorgeous the pall presented. Then, too, at chantry masses, the clergymen were given vestments, the ground color of which was that of the field of the coat-of-arms belonging to the person whose mass was being celebrated. The fourth, and probably the chief, cause lay in the statement of Pope Innocent III at the end of the twelfth century: "There are four principal colors by which the Church of Rome distinguishes her sacred vestments according to the proper character of the day----white, red, black, and green. For in the vestments of the Law, it is said that there were four colors---white, purple, blue, and scarlet". In the Church of England, where the monastic orders were under the influence of the Pope, these new colors would soon be adopted. In secular cathedrals and the large parochial churches, the former colors would still hold.

(1)

(1) TRANSACTIONS OF ST. PAUL'S ECCLESIOLOGICAL SOCIETY, vol. I, p. 90

Opposed to this theory of Powell stands Dr. J. Wickham Legg who traces the source of liturgical color to heathen Rome. There are two reasons, he says, why the Levitical scheme is not the foundation of color in worship. In the first place, black, not a Mosaic, is one of the earliest, dating from 476 A. D. Green, also omitted from the so-called mystical five, goes back to the first representation of a chasuble shown. Again, the Eastern Church has only two colors, white and purple, or white and red. Had the Mosaic colors been in general use, certainly the East, fond of mysticism as it is, would have adopted them.

Lack of knowledge as to what the ancients meant by certain color-words, as purpureus, hyacinthinus, coccineus, coerulus, rubeus, blodius, indius, often prevents one from determining exactly what hue is indicated in a given record. For instance, purpureus is applied to the sea, the dawn, the poppy, blood, hair, and the fig. Coeruleus and hyacinthinus seem to stand for either green or blue. Colors in illuminations, painted windows and woven stuffs have changed with the centuries until they are no longer reliable as proof as to the exact hue or tone of the original color.

Dr. Legg contends that the early Christians took both the form and the color of their ecclesiastical raiment from

the Romans. The toga was fresh-whitened when a man sought office and on birthday and similar festive occasions. For mourning, his raiment was dark. The triumphal robes of emperors and generals were purple or purple and gold. These, then,-----white, black, purple, and gold----were the forerunners of ecclesiastical color.

From mosaics and from manuscripts Dr. Legg has tried to determine the approximate time of the appearance of the various colors in liturgy. White is found in the earliest mosaics and catacombs. In 476 the Patriarch of Constantinople clothed himself, his choir, and the altar in black as a sign of mourning. Gold, too, was in early use. In the first half of the sixth century green appears in mosaics. Red is found rarely either in documents or mosaics until the twelfth century, though it may have been one of the oldest colors coming from the royal purple. Ash-color also had its place in the Roman church. As far as can be determined, it was a substitute for black. In the ninth century at Centutum black, purple, blue, yellow, and perhaps green were worn. With the proclamation of Innocent III came the beginning of the custom of using the different colors at the various seasons and festivals of the church year. Up to this time there is little evidence of the use of a specific color for a particular occasion.

The primary liturgical colors are still white, black, gold, and red, according to Dr. Legg. For these, other colors are often substituted; lily, silver, and gold, for white; violet, purple, hyacinthine, blue, azure, morello (a ripe plum color), brown, gray, ash, dove, dun, for black; green, saffron, and yellow, for gold; crimson, murrey, tawney, purple, rose, pink, and gold, for red.

After the presentations of the investigations of Mr. Powell and Dr. Legg, W. H. St. John Hope made a careful study of English church inventories and wills, dating from 1220 to 1566, to determine what colors were actually used in services of worship during that period. Most frequently he found mention of white, red, blue, green, yellow, black. But there were, too, tawny, purple, violet, brown, dun, and various combinations of two and three colors, as white and blue, or red, green, and yellow. Vestments and altar cloths were sometimes described as striped, paled, checky, or motley. Occasionally, there were doubtful hues, as popinjay-color, crane-color, and horseflesh-color. The first of these seems to have been either yellow or green, the second yellow, but the third is unknown. Yellow is oftentimes difficult to distinguish from green in these old documents for the words, gold, green, gall, fallow, and yellow, all come from a common root. Ash-color also is mentioned, but

Unlike Dr. Legg, Hope considers it a substitute for white. There was cloth of gold as well. When it took on some other color it was called red cloth of gold or black cloth of gold and its use was determined by that of the particular hue it had taken on. When it looked gold it was used for principal feasts.

Each diocese in medieval England had its own system of colors for the festival days of the church. More or less complete color sequences remain to us from the dioceses of Exeter, Lichfield, Lincoln, London (St. Paul's), Salisbury, and Wells. There are fragments of the sequences of Hereford and York but nothing regarding Chichester. From six of the seven dioceses with Benedictine chapters, Durham, Ely, Norwich, Rochester, Winchester, and Worcester, no full sequences are available. Westminster Abbey, a church without a diocese, had its own complete set of rules. In Salisbury in the thirteenth and fourteenth centuries the colors in use were red, white, yellow, and black; in Lichfield (circa 1240), red, white, black, and various precious colors; in Lincoln (1258-79), red and green or brown; in Westminster (1266), white, red, sub-red, black or quasi-black, blue, green, and yellow; in Wells, (1310-20), blue, white, red, blue and white, white and red, green and yellow, blue and green, and black;

in Exeter (c. 1337), violet, white, red, green, blue, yellow, black, and violet; in London and Canterbury, violet or purple, white, red, green, black, and yellow.

There is absolutely no uniformity in the employment of any one color in the various dioceses. For Easter Even, Wells used red, Exeter used violet and St. Paul's used white. White is often the Easter color but Wells and Westminster prescribed red. Though vestments and altar hangings were usually white at Lent other hues were occasionally employed. Colors for Good Friday vary from red through purple and violet to black. Black was customary for funerals, requiem masses, etc., but at St. Paul's white stood for mourning. Exeter, Durham, and York chose blue "for funerall dayes". One blue garment is described as having "ymages of souls coming out of Purgatory on all Soul's Day". In another instance, a bishop bequeathed to a parish a vestment of purple and violet for requiems and still another parish received a whole suit of green for the same purpose.

Though Luckiesh claims that the Sarum rule was prevalent thruout England and that it embraced the five so-called "mystic colors", the rule itself as cited in the mass-book mentions only red, yellow, white, and black which do not

exactly correspond to the red, gold, blue, purple, and white of the mystic hues. The rule is here given.

"In Easter-tide of whatever the mass is said (except on the Invention of the Holy Cross) let the ministers of the altar use white vestments at mass. In the same way let it be done on the feast of the Annunciation of the blessed Virgin and on the Conception of the same and in each feast on St. Michael and in the feast of St. John, then in Christmas week and through the octaves and on the octaves of the Assumption and Nativity of the blessed Mary, and on commemoration of the same through the whole year, and through the octave and on the octave of the dedication of the church.

"But let them use red vestments on all Sundays through the year out of Easter-tide when the office is of the Sunday, and on Ash Wednesday and on Maundy Thursday, and on each feast of the Holy Cross and on every feast of martyrs, apostles, and evangelists out of Easter-tide.

"Moreover, on all feasts of one or more confessors let them use vestments of yellow color."

To this a manuscript in the Bodleian Library adds: "In all masses for the departed throughout the whole year, they use black vestments".

Hope calls this the most incomplete sequence since it

omits many important feasts of the church year. Besides, it is not consistent with actual use in the churches for an inventory of 1222 shows that even at that time other colors were being employed.

(1) Of all the rules of color the Sequence of London given by Bishop Clifford (1406-26) at Corpus Christi College in Cambridge is the most interesting in that it states the symbolic meaning of each prescribed color. Because it does so minutely give the reasons for the use of the various hues on special days, it is here set down in full.

"Concerning the colors of vestments according to the Roman Curia, when and how often various colors must be used in church.

"Concerning white color----White color amongst all colors is the first, the purest, the most simple and the most festal. Therefore, it must be used on the birthday of our Lord because of the delivery of a Virgin; and on the day of St. John the Evangelist and Virgin; and on the sixth day after Christmas; and on the day of the Circumcision, and on the octave of St. John; on the eve, day, and through the whole of the octave of the Epiphany; on the Purification and all feasts and commemorations and octaves of the Blessed

(1) TRANSACTIONS OF ST. PAUL'S ECCLESIOLOGICAL SOCIETY, vol. 2, p. 260

Mary; on Maundy Thursday on account of the consecration of the chrism, the institution of the Eucharist and the washing of feet; and on the vigil of Easter and throughout the whole of the octave; and on all Sundays and ferial days until the Ascension, on account of those born again to the joy of the Resurrection and on the day and throughout the octave of the Ascension on account of the two men standing by in white (robes); and on the feast of the Nativity of St. John Baptist and throughout the octave of the same, on account of his purity; and on the feast, and throughout the octave of the Eucharist because it is the brightness of eternal light; and on the day of the Holy Trinity; also on feasts of angels and virgins; and, according to the Roman Curia; white must be used on feasts of All Saints; and also on the dedication of the Church and throughout its octave, on account of the marriage of Christ and the Church.

"Concerning red color----Red color is like fire and blood; like the charity of the Spirit and the effusion of blood; therefore, (it must be used) on the vigil and day and throughout the week of Pentecost up to the feast of the Holy Trinity; and on feasts of all apostles and evangelists, and of all martyrs throughout the whole year, excepting the Beheading of St. John Baptist, and the feast of the Holy

Innocents, when, according to the Roman custom, violet must be used, because they descended into hell. Nevertheless, on the octave of the Holy Innocents, because the octave signifies the resurrection, red vestments must be used; and likewise on either feasts of the Holy Cross and commemorations of the same because it was sanctified by Christ's blood.

"Concerning yellow color----Yellow color is ripe in aspect, and intermediate between white and red, like shining gold. Therefore, on all feasts of confessors, and, according to some, on the feast of the Magdalene, yellow-vestments must be used. Nevertheless, the Roman Church uses white on feasts of the Confessors.

"Concerning violet color----Violet, or purple, dark and obscure of vision, is indicative of penitence and despising of the world. Therefore, on the first Sunday of our Lord's Advent, on account of the time of anxious expectation, and on ferial days, when the office is de tempore, until evensong on the eve of Our Lord's Nativity; and from evensong on the Saturday of Septuagesima, when Alleluia is ended until Maundy Thursday; or, according to some churches until Passion Sunday; and on Rogations and Ember Days outside the week of Pentecost, and on all vigils of Saints, on account of the time of

penitence, purple and violet must be used.
And note, that purple and violet are reckoned the same.

"Concerning green color----Green color is lively and pleasant and comforting to the sight. Therefore, it is suitable for those times in which the faith of the Incarnation, and of the infancy of the Saviour, and the faith of Holy Trinity is remembered; because a just man lives by faith, and in like manner, grows and rises again. Therefore on all Sundaysand ferial days from the octave of the Epiphany to Septuagesima, and from the feast of the Holy Trinity until Advent, throughout the whole summer, when the office is de tempore, green vestments must be used.
And it must be known that yellow and green are reckoned the same.

"Concerning black color----Black color is mournful, and the last. Therefore, it must be used on that account on the commemoration of souls and as often as the service is of the dead; and on Good Friday, black vestments must be used. Nevertheless, it seems more convenient on Good Friday to use red as far as solemn prayers and afterwards black.
And it must be known, that, according to some, violet and black are considered the same. Nevertheless, in the Church at Exeter on three feasts, they use indifferently all colors at once; like as on the feasts of All Saints, and of Relics,

and of the Dedication of the Church."

What, then, shall be our conclusion regarding color in the medieval church? It would seem that each parish church followed the sequence of the diocese as closely as its circumstances permitted. If the church were wealthy it could provide itself with the proper colors for the different religious seasons. If it were poor it must use what it possessed regardless of color. On high days the finest and richest materials were brought forth, the older and simpler garments and hangings being made to serve on all other occasions.

The five colors now prescribed in the Roman Church are white, red, green, violet, and black. Certain supplementary colors are allowed for particular days. On the third Sunday of Advent and the fourth Sunday of Lent rose vestments are (1) permitted "because then the prevailing penitential supplication of chant and prayer in the Litany is relaxed and a more joyous tone is assumed". Blue vestments may be worn in Spain on certain days tho they are absolutely forbidden in all other countries. Yellow vestments may never be worn unless partly woven of gold thread. Garments of gold cloth may be substituted for all colors except violet and black. The amice and the alb are always of white. The cincture may be of the color

(1) Walsh, MASS & VESTMENTS OF THE CATHOLIC CHURCH, p. 480

of the vestments.

(1) Walsh in his excellent book on the mass carefully explains the symbolism of each color.

"Red typifies fervor of spirit and charity because the Holy Ghost descended upon the Apostles in fiery tongues--- also blood shed for charity and faith.

"Green bespeaks hope. As pilgrims and soldiers we walk through a weary life,, struggling as we walk, and we should not faint on the way because we are sustained by Our Lord,who in person hath visited us, and by the grace of His Holy Spirit, and, therefore, like the living branch whose life is renewed, we should journey with an indescribable hope toward our true country. Because green holds a mid-place between white and black and red, it is used when there is neither special joyousness, nor penitential lowliness, nor the profound sorrow of death.

"Violet symbolizes the crucifixion and chastening of the body, and is used when the dominant note is that of penance and fast, and to denote sorrow for sin and hope of pardon.

"Black represents death which robs us of the light of life and consigns us to the darkness of the grave. Its use voices our grief at the death of our Redeemer on Good Friday and of his creatures whilst they are detained in Purgatory".

(1) Walsh, MASS AND VESTMENTS OF THE CATHOLIC CHURCH, pp. 481-2.

COLOR IN ANCIENT MYSTERY PLAYS

From the early part of the thirteenth century to the latter part of the sixteenth, mystery plays or pageants portraying scenes from the Old and New Testaments marked the various religious festivals of the English church. These scenes were enacted upon wagons with two platforms, the lower being used as a dressing room and the upper as a stage. These wagons or "pageants" were drawn from place to place about the city, the scene being repeated at each stopping-point. Each artisan's guild became responsible for the production of some particular scene and any member of the guild failing to learn his lines or otherwise contribute his share towards the production was fined or punished by some other means. The York, Coventry, Chester, and Towneley Plays have come down to us in some detail.

Records concerning the costuming of these plays are scarce indeed. Yet one finds in pageantry directions, personal memoranda, bills, receipts, expense accounts, and proclamations, interesting glimpses of the details incident to the various productions of play cycles.

Costumes seem to have been obtained from any source

whatsoever. They were bought, they were rented, they were borrowed. In 1521, for the Corpus Christi pageants, (1) it is noted that the players borrowed a "gown of my lady Powes for one of the Maries, and the other Mary (was) to be arrayed in the crimson gown of velvet that belongeth to the gild and the prior of St. Katharine's to be spoken with to have such 'honourments' as we have had aforetime". One must not overlook the last portion of this statement for it was from the parish churches that the richest and most gorgeously embroidered vestments were secured. Indeed, the clergy often made a handsome profit from renting the church vestments to the players. Among the smiths' accounts at Chester, the following is found: (2)

1569 To the Clarke for the lone of a Cope, and Altar Cloth and Tunicle xd

1575 To John Shaw for lone of a Doctor's gowne and a hode for our eldest Doctor xiid

1566 Gloves for the Doctors and little God on Midsomer eve vid

(3) Spencer thus well describes the general character of the costumes. They were "on the whole---------rich, gaudy, splendid, and anachronistic. Medieval Englishmen cared or knew nothing about historical setting and costuming and

(1) HISTORICAL MANUSCRIPT COMMISSIONXXIV, App. 8, p. 29, quoted by Spencer, CORPUS CHRISTI PAGEANTS IN ENGLAND, p. 217

(2) Morris, CHESTER DURING THE PLANTAGENET & TUDOR REIGNS, p. 311, quoted by Spencer, p. 218

(3) Spencer, p. 219

what was good enough for an English nobleman or canon was considered entirely sufficient for Abraham, Annas and Caiaphas, or Herod. Besides, the audiences were interested in the splendor of the spectacle, not in the historical accuracy. For this reason, the pageant-masters could require their players always to wear gloves, no matter whether the occasion was a ceremonial one or the play of the rustic shepherds in the fields around Bethlehem, or whether it was Pilate on his throne in Jerusalem or Cain plowing in the field with his oxen. For this reason, too, the Coventry smiths could borrow Lady Powes' red velvet gown for Mary Magdalene. The richer the gown, the more splendid the show, no matter whether the costume was fitting to the particular rank of the person represented or not". But having acknowledged this, one must admit that symbolism and an occasional attempt at historical accuracy, however rude they may have been, played some part in the garbing of the different characters.

(1) Warton claims in his HISTORY OF ENGLISH POETRY that he saw Adam and Eve represented by absolutely hude actors, though other authorities attempt to show that in all probability they wore "breeks". In THE STORY OF THE CREACION OF EVE WITH THE EXPYLLING OF ADAM AND EVE OUT OF PARADYSE, a

(1) Spencer, CORPUS CHRISTI PAGEANTS IN ENGLAND, p. 220

"Rybbe coloured Redde" was taken from Adam's side by Pater in the presence of the audience and made into woman! This interesting "Rybbe" is listed among the properties of the grocers' guild.

God and Christ, who was also called God, seem to have been clothed in various garments according to the play in which they appeared. At Norwich in the grocers' FALL OF MAN, God wore a mask and artificial hair and at Newcastle in the slaters' ABRAHAM AND ISAAC he and his angel both wore crowns. At Chester, he seems to have had his face gilded. Christ often appeared in a coat of white leather with red sandals and a gilt peruke and beard. In the Ascension Pageant of the Chester Players he wore blood-red.

Souls destined for hell wore coats of black. Later, these garments were made of black, red, and yellow, as more horrible and flame-like, and therefore more suggestive of the fate awaiting them. Souls bound for heaven wore white coats and hose. The drapers' accounts at Coventry list the following:

"1536---Itm for mendyng the white & the blake soules cotes xviijd

1537---Itm for making & mendyng of the blakke soules hose vjd

Itm for payre of newe hose & mendyng of old
for the whyte soules xviijd

The Devil was generally portrayed with horns, cloven feet and a forked tail. He was a black, shaggy, beast-like creature and sometimes had pipes of burning gunpowder in his ears. Later, he must have become a more refined gentleman for Hone quotes a spectator at a performance as saying that the Devil wore black with scarlet stockings and a gold-laced hat.

In the Digby MARY MAGDALENE, the angel appearing to Mary was gowned in white. In the Coventry drapers' play, these heavenly beings wore wings and diadems and presumably, from an entrance in the expense account of the play, golden coats.

At one time, in the Coventry plays, Herod wore a satin robe, probably of blue, In other years his robe was painted and stained. He had false hair and face, a golden crown and a falchion of gilt. Pilate's cloak at one presentation was probably green, since an item shows that green thread was purchased to mend it. He wore also a doublet, gloves, and a gilded wig. He bore a mall, the head of which was of leather stuffed with wool.

(1) In the LUDUS COVENTRIAE Annas' gown is carefully detailed----"Here xal Annas shewyn himself in his stage---- in a skarlet gowne, and over that a blew tabbard furryd with whyte and a mytere on his hed, after the hoold lawe". Caiaphas' garments were like those of Annas "savyng his tabbard xal be red furryd with white".

With the exception of the crown worn by the Virgin, the three Marys seem to have been gowned alike. We have already mentioned the robe "borrowed of my lady Powes" and the crimson gown belonging to the guild used for two of the Marys. Judas seems to have appeared in a red wig and beard and the traditional yellow robe. Among the minor characters, the tormentors of Christ were apparently the most gorgeously robed. In the Coventry CRUCIFIXION (2) "iiij Jakkets of blake bokeram for the tormentors wt nayles & dysse upon them", "iiij for tormentors of an other suett wythe damaske fflowers", and "ij party Jakkets of Rede and blake" are listed. Of the garments of many minor characters little is known. Here, the magi appear " in rich Aray"; there, "Canvys for Judas' Coote" is purchased. But definite details are lacking. Nor have we any record of the costumes of Noah and his wife, both of whom were important figures in the Old Testament scenes.

(1) Hallowell, COVENTRY MYSTERIES, cited by Spencer, pp. 244-5

(2) Sharp, COVENTRY MYSTERIES, p. 16, cited by Spencer, p. 245

By 1600, the great popularity of the mystery plays had ended, due partly to complaints as to their expense, partly to the enmity of the bishops who resented the secular elements which had gradually crept into their presentation. But there were still plays less religious in theme as well as gorgeous processions on the ecclesiastical feast days. Of these latter we find an occasional glimpse. The St. George Procession, prior to the Municipal Corporations Act of 1835, always contained a dragon, Snap by name, who was a magnificent creature in glittering green and gold. In the Castle Museum in London, one may find a costume worn by Snap, along with the Lord Mayor's Robe of Justice in mauve silk, the sheriff's cloak of black velvet lined with red, and the red and blue uniforms of the standard bearers with their shining gilt buttons. Here also are the red, white, blue, and gilt costumes of the whiffler who was r either an attendant of some high personage or the man who (1) rode ahead clearing the way for the procession. In some of these parades, "a man or two in painted canvas coats and ridiculous red and yellow cloth caps, adorned with Cats Tails and small bells went up and down to clear the way, whose weapons were only small wands. These were called or known by the name of Dick Fools". Costuming now has lost the little religious significance it had, the main desire being to treat the beholders to a brilliant and gaudy spectacle.

(1) Ewing, COSTUMES, PROCESSIONS, PAGEANTRY, ETC., FORMERLY DISPLAYED BY THE CORPORATION OF IPSWICH, cited by Withington, ENGLISH PAGEANTRY, vol. I, p. 28

COLOR IN COSTUME

When one begins the task of planning and creating pageantry costumes he finds that there are many factors to be reckoned with. In the first place, he must discover the mood of the scene and the emotions which he would arouse in the spectators. The joyous scene calls for the lighter, more brilliant colors, the serious and tragic for the more somber. Cool colors are calming, warm colors more exciting. One must consider, too, the effect when a group or part of a group changes its position on the stage. Will any color notes clash during the progress of an episode as the characters intermingle? The eye must find continued satisfaction in the color scheme or it will become weary. So, if the scene is a long one, colors must be more subdued than in a short episode. Here is practical application of the "Law of Areas". Color may progress in intensity as the emotion grows stronger. In a processional, hues may range from dark to light or from light to dark if this arrangement has any particular meaning.

Color must also give the correct dramatic emphasis. The important characters must be so clothed that they stand out while minor persons are properly subdued. An annual Lenten production in Boston has one lesser character garbed entirely in red even to stockings. When that individual is

on the stage every other actor fades into the background. Here the emphasis is entirely misplaced and significant action lost.

Color helps to interpret the personality of a character. Hamlet is traditionally portrayed in black as befits his mood. We think of Falstaff's merry heart as best suited to rich, bright hues. Historical accuracy, too, must be sought. One needs to know that the Arabs, the Egyptians, and the Romans wore stripes, the Greeks used borders, and that flowered brocades were important in the Middle Ages. Symbolism has its place as well. However, if any person is clothed in a symbolic color, no other person in the scene must wear that same color. Otherwise, the costume loses its meaning.

One needs to make sure that the proper amount of contrast exists between background and costumes. Without care in this regard, costumes become blurred and indistinct. The distance between actors and audience is also important. Colors at close range must be less brilliant than those which must reach the eye over a great intervening space.

In the costuming of masses, one color in different tones or one or two colors in a great mass with the same lines thruout may be used. Character is given to a group when one or more people are given a color different from the rest.

Blue costumes lighted with amber or white lose their brilliancy unless blue bulbs are added to the lighting plot.

In planning color masses for each scene one should first make a model stage of cardboard, true to scale and lighted by the same type of illumination and from the same angle as that of the actual performance. Squares of cardboard relativein size to the group to be costumed are then covered with bits of material in a chosen color scale. These squares are placed upon the stage in the positions to be occupied by the various players. The effect is then studied. Shifting about of the cards will finally produce a satisfactorily arranged color scheme. Every change in the position of the groups must also be tested to eliminate possible discords. After each scene has been thus worked out, they must be tried out one after another to make sure that harmony results from the succession of scenes. The finale when all groups are massed together needs great care. So also does a processional when all the participants file past the spectators.

(1) Crawford and Beegle give several color scales which may serve as a basis for experimentation. The first of these, strong in its effect, is comprised of ruby-red, deep orange, yellow, yellow-green, blue-green, blue-violet, red-violet.

(1) Beegle & Crawford, COMMUNITY DRAMA & PAGEANTRY, pp.162-4

The same scale darkened or toned down becomes deep wine, orange-brown, light olive, apple-green, gray-green, blue-violet-gray, red-violet-gray. Another scale somewhat different in effect includes ruby-red, red-orange, orange-yellow, yellow-green, blue-green, blue, violet. This in softer tones becomes deep wine, orange-brown, yellow-brown, light olive, gray-blue-green, light blue-gray, violet-gray.

Greens and blues are lost in an out-of-doors pageant unless their shades or tints are much darker or lighter than the green of the grass and the trees. Pastels are washed out by sunlight. Strong, bright colors carry best in the open air, yet here one must use care or sunlight will so intensify the colors that the effect is harsh.

The principles of color arrangement which must be constantly kept in mind have been set forth in the first section on THE SCIENCE OF COLOR.

If one would know the colors prominent in any period, his best sources of knowledge are the paintings, fabrics, and ceramics of that time. The Hebrews themselves originated nothing in the way of style. They copied the garments of Egypt and Assyria. There are no specimens of ancient Assyrian costume left to us but we may assume the colors used

from their lavish use of ornaments and from references in Hebrew and Old Testament writings. The Assyrians had a variety of purples, maroons, light yellows, oranges, blues, ochres, green, black. These colors were used to dye entire garments or as embroidery on white or natural linen. Sheep's wool was pale or deep cream or gray. Goat's hair was black. Jewels such as those prescribed in Exodus 28 for the dress of the high priest also had definite color value. In architecture a combination of blue, white, and yellow was favored.

The Egyptians used reds in vermilion, terra cotta, Indian, Venetian, and orange-red; blue in turquoise, blue-green, and ultramarine; green with a yellowish cast; black; and white. The last two colors were often combined in a single costume as were also yellow and black. In the country, green, red, and black together were particular favorites.

Persian colors were yellow, amber, gold, maroon, crimson, blue, olive-green, violet, black, and white. Among the Greeks colors were brilliant. Two purples were known. The purple of Tyre, a deep rich crimson, was that worn by the aristocracy. Blue-purple and red-purple come from this source. The purple of Cassius was red-purple or wine. Black and gray stood for mourning.

Peasants usually wore gray and brown. Other common colors were red (dark red, scarlet, vermilion), yellow (saffron, yellow ochre, sulphur), green (emerald, veridian, apple-green, and a color like "unripe grape"), and gray. Pure white linen robes had borders embroidered in gold, silver, and vivid hues. The garments of women and girls were yellow, crimson, blue, or green with ornamental borders.

In Rome garments were usually white with colored borders done in embroidery and stencilling. Purple was worn by the ruling classes. Many shades of green, yellow, red, brown, and blue were known. Togas often had golden embroidery. Black was mourning here as among the Greeks. Senators and curules had boots of red leather while patricians had four-strap shoes of black. Women's shoes were in white and various colors. In pagan Rome in the third century brides wore veils of orange or flame color. Christian brides wore purple and white. A mosaic dated 352-366 A. D. shows emerald green, orange, black, deep blue, gold, and white.

Each order of monks has its own type of costume. The Benedictines wear all black; the Cistercians, gray or white; with black scapular; the Carthusians, white with white scapular; the Franciscans, up to 1224, light brown or natural, and after that grayish; the Dominicans, white frock, black

mantle and white or black scapular; Nuns wear frocks of the same colors as the Orders, novices wearing white veils and proposed nuns veils of black.

The costumes of Japan are very lovely in their varied colorings and graceful designs. For the street, women wear quiet gowns. Indoors, kimonos are of gay materials figured with butterflies, birds, and blossoms. The more refined women wear costume decorations in seals at the center of the back and upon the sleeves. The kobi or sash is more brilliant than the kimono itself. The garments of men are quieter and darker than those of women.

In China, the predominating color is blue trimmed with black though all other colors are in use. Yellow is for the royal family.

The chief colors of India are orange, purple, crimson, green, brown, black, and white. Widows wear pure white. Garments are either colored with a border or have an all-over geometrical design. Turbans for men are white or red. The waist worn by men under the sari is white. Each caste has its own costume. The Mohammedan women wear the perdi, a round cap with a veil attached. The Indian perdi is white; the African is black, white, or dark blue; the Turkish, black

with a white veil.

For accuracy of color for Old and New Testament characters, the Tissot pictures are a valuable source of information. For costumes of other nations, Herbert Norris' two volumes COSTUME AND FASHION are unsurpassed.

COLOR IN PAGEANTRY SETTINGS

Dignity is a prime requisite of religious pageantry. The modernistic set with its broad, swirling lines and bold, challenging colors has no place in a production whose chief aim is the development of worship and reverence. Nor is the airy or the fantastic in keeping. The quiet setting keyed to the mood of the pageant is the ideal to be sought.

Many productions in the church find their backgrounds readymade in the soft, neutral walls, rich dark woods and glowing stained glass windows of the chancel itself. Only a few properties are required here to suggest any definite place. A recent Easter production laid in the garden of Joseph of Arimathea had for its only properties a white stone bench and great green pots of Easter lilies, the latter flanking the sides of the stage. At the back, other pots of lilies stood out against a deep blue curtain which hung in heavy, soft folds and served the double purpose of adding color and hiding the organist from view. Tho of the utmost simplicity, the scene was one of dignity and real beauty as befitted the Biblical portrayal of the events of the Resurrection morning. Color brought to the chancel thru constructed scenery such as houses and

walls or thru artificial flowers is poor taste indeed. The stage is meant to suggest rather than to portray with exact realism. The chancel which to the worshipper is a place of strength and holiness is definitely cheapened when we load it with the obviously stage and artificial.

(1) Curtains of brown, blue, or gray are most likely to be satisfactory, according to Stratton. Black hangings have the disadvantage of seeming to close in the stage and make it appear it smaller than it really is. Dark costumes, too, do not show clearly against them. In any case, whatever the color used, one must beware of decorations on the curtain which might catch the eyes of the audience and draw attention from the actors. Long before the writer knew anything about pageantry, she attended a convention held in a large city church. Some misguided soul, thinking to beautify the place, had made a great hanging of vari-colored crepe paper cut in long strips and had suspended it at the back of the chancel behind the chairs of the presiding officers and the speakers. It was late spring and all the windows were open. The strips of paper leaped, danced, contorted all day long. The speakers and their speeches have been utterly forgotten, but there still remains the memory of an agonizing day spent in watching black figures

(1) Stratton, PRODUCING IN LITTLE THEATRES, p. 97

move about before a brilliant background which, without the slightest cessation of movement, shot upward, dashed downward, and leaped from side to side in the fresh breeze. Such lessons are well learned!

If one uses screens and has but one set, gray is perhaps the best choice. Dark colors show well against it. It is equally suitable for the interior of an Oriental house, a monastery or a medieval castle. But the gray should be produced by "broken color" rather than by a ready-mixed paint. "Broken color" or "pointillage" is the spotting in of two complementary colors as red and green or yellow and blue. Or perhaps three colors are used as red, blue, and green. This method produces an effect of life as against the dead flatness of ordinary gray paint. Other good combinations are dark cream, light cream and pink or blue-gray and yellow-gray. In this process the first coat is put on as a solid foundation and the second and third are spattered upon this. Flats of course are painted in this same way.

For productions outside the chancel one may construct any necessary seenery. A stage may have a painted drop at the back with the sides masked in curtains of gray or black.

In this case, the set is brought as far forward as possible to lessen the amount of curtains seen by the audience. A sky drop should be very softly tinted with the bottom very light, the color growing deeper as it rises towards the top. Three or four ounces of Italian blue in a pail of white will give sufficient color which at any time may be darkened by a blue light thrown upon it. Over this blue body coat evenly spattered tints of pink, blue, purple, with perhaps a little white will give a better texture than the blue alone. Aluminum powder mixed either in the body paints or in the sizing water will give added brilliancy to sky drop or to walls.

"To appear to be natural from the audience one must appear to be unnatural on the stage." In landscape sets, then, tree trunks, rocks, vines, and the like shall never be done in one color. Rocks are not dead gray. They may be dull cream, varied with rose pink, light brown and pale blue with shadows in blue, bluish-green, and purple, and moss in greenish patches. Foliage needs touches of red and blue to add roundness and make it appear alive. Dark Chrome Green, Leaf Green Lake, and Hanover Green are all good foliage colors. Some scenic artists use Ultramarine

Blue as a priming coat and paint green and red into it.

Pale blues and violets give the impression of distance. Mountain rows may be light greens, blues, and purples, spattered well with pure violet which is made by a mixture of Ultramarine Blue and a little red. Dark blue theatrical gauze hung at the front of the stage produces the effect of mist. Several cutout foliage drops hung one behind the other with gauze pasted over the open spaces of each make the furthest drop appear very far away. Painted shadows are not good, but if one feels that they must be used, they may be brown, green, purple, blue, almost any color in fact except black.

The following list of paints in powdered form is quite sufficient for the purposes of the scenepainter:

Italian Blue
Ultramarine Blue
Venetian Red
Raw Sienna
Burnt Umber
Yellow Ochre
Light Chrome Yellow
Medium Chrome Green

Hanover Green
Emerald Green
Drop Black
Lemon Yellow
Burnt Sienna
Vermilion
Permanent Red
Purple Lake
Orange Mineral

The pageant given out-of-doors often relies upon the natural setting of trees and distant hills for its background. If a set must be constructed it is usually an affair of quiet gray.

Accessories do much to add brilliancy to a scene. Bright flowers, golden objects such as a cross, candelabra, and altar vessels, gleaming candles, tapestries, gorgeous pennons and banners-----these are but a few of the means of bringing a large measure of life and beauty to any pageant.

In THE MIRACLE Max Reinhardt has given us an example of the ideal setting. His production manuscript lists the color key and leading motif of each scene in that exquisite

pageant. Only a few colors dominate any one scene yet infinite variety has been achieved by the use of practically every spectrum color somewhere in the production. More than that, the mood of each scene has been definitely established. The winter forest is barren in its white and gray, the summer forest cool and refreshing in its greens and blues. There is symbolism, too, as in the joyous vermilion, yellow, and gold of the wedding scene.

"T H E M I R A C L E"

COLOR KEY AND LEADING MOTIVES

(All colors are against black and gold)

SCENE I. CATHEDRAL

Statues, Nuns, Priests, Populace, Knight.

(Dark, Musty Stone)

SCENE 2. SUMMER FOREST

Incense, Mist, Elves, Knight, Count, Hunters, Bushes.

(Tapestry)

Green, blue-green, blue.

SCENE 3. BANQUET

Count, Banqueters, Gypsies, Prince, Servants.

(Stained Glass)

Blue-violet, violet, red-violet.

SCENE 4. WEDDING

Bed, Lanterns, Witches, Prince, Companions, Emperor, Conspirators.

(Enamel)

Vermilion, yellow, ivory, gold.

SCENE 5, CORONATION

Candles, Cymbals, Bells, Palanquins, Emperor, Empress, Courtiers, Revolutionists.

(Gold Treasure Objects)

SCENE 6. INQUISITION

Confusion, Storm, Torches, Mob, Street, Soldiers, Judges, Executioners.

(Puppets)

Crimson, brown.

SCENE 7. MANGER

Soldiers, Wenches, Star.

(Tryptic)

Brown, ivory.

SCENE 8. WINTER FOREST

Stars, Snow, Shadows, Dead Lovers.

(Skeleton of Church)

White, gray.

SCENE 9. CATHEDRAL

Christmas, Evening, Choir

Gray.

When we reach that point where we can design stage sets which thus establish a definite mood, provide variety without gaudiness, please the eye with their beauty, and rouse the emotions with their symbolism we shall be well on the road to that true artistry to which every creator aspires.

COLOR IN STAGE LIGHTING

Color in light possesses three qualities; hue, saturation, and brightness, the latter two corresponding to value and intensity in pigments. The primary light colors are blue, red, and green. The secondaries, made from combinations of the primaries, are blue-green, yellow, and violet. The complement of green is violet, that of blue is yellow, and that of blue-green is red.

Any pigment is modified by the colored light rays
(1) which fall upon it. Chevreul has listed the modifications produced by each spectrum color on pigment hues. The substance of his observations is here given.

RED	upon	black	gives	purple-black
"	"	red	"	deeper red
"	"	orange	"	red-orange
"	"	deep green	"	red-black
"	"	light green	"	reddish-gray
"	"	light blue	"	violet
"	"	violet	"	purple
ORANGE	"	black	"	maroon
"	"	orange	"	more vivid orange
"	"	red	"	scarlet
"	"	yellow	"	orange-yellow

(1) Chevreul, PRINCIPLES OF HARMONY AND CONTRAST OF COLORS, pp. 99-103

ORANGE	upon	light green	gives	yellow-green
"	"	dark green	"	rusty green
"	"	light blue	"	orange-gray
"	"	dark blue	"	orange-maroon
"	"	violet	"	red-maroon
YELLOW	upon	black	gives	olive-yellow
"	"	yellow	"	orange-yellow
"	"	red	"	orange
"	"	orange	"	deep yellow
"	"	green	"	yellow-green
"	"	light blue	"	green-yellow
"	"	dark blue	"	green-slate
"	"	indigo (deep)	"	orange-yellow
"	"	violet	"	yellow-maroon
GREEN	upon	black	gives	green-brown
"	"	green	"	more intense green
"	"	red	"	brown
"	"	orange	"	faint greenish-yellow
"	"	blue	"	green
"	"	dark indigo	"	dull green
"	"	violet	"	bluish-green-brown
BLUE	upon	black	gives	blue-black
"	"	blue	"	more vivid blue
"	"	red	"	violet
"	"	orange	"	brown

BLUE	upon	yellow	gives	green
"	"	green	"	blue-green
"	"	deep indigo	"	dark blue-indigo
"	"	violet	"	dark blue-violet
VIOLET	upon	black	gives	faint violet-black
"	"	violet	"	deeper violet
"	"	red	"	red-violet-purple
"	"	orange	"	light red
"	"	yellow	"	red-tinted-brown
"	"	green	"	light purple
"	"	blue	"	violet-blue
""	"	dark indigo	"	deep violet-blue

(1) "When one has awakened to the vast possibilities of light, shade, and color as a means of expression, it is difficult to suppress a critical attitude toward the crudity of lighting effects on the present stage, the lack of knowledge pertaining to the latent possibilities of light, and the superficial use of this potential medium.-----Lighting suffers in the hands of the artist, owing to the absence of scientific knowledge, and it is misused by the engineer who does not possess an aesthetic sensibility. Science and art must be linked in lighting". So speaks Matthew Luckiesh, Research Director of the Edison Lamp Company and authority on
(2) light and color. "The stage, as a whole", he says, "is a

(1) Luckiesh, ARTIFICIAL LIGHT, p. 319

(2) Ibid, p. 321

mobile picture in light, shade, and color with the addition of words and music. Excepting the latter, it is an expression of light worthy of the same care and consideration that the painting, which is also an expression of light, receives from the artist". Effective lighting, to Luckiesh, means "painting with light", that careful arrangement which makes actor a and setting stand out in relief, increases the beauty of the setting and costumes, carries out the intended psychological and emotional values of the production, and causes the attention of the audience to be drawn to the center of interest.

Only since the end of the last century has any attention been paid to the effects which might be achieved by well-planned lighting. In the past, stage illumination had no connection with the play itself. There were only two rules to be observed. One must use red light in murder scenes and green light in love scenes! Now, a small group of men, the majority of whom are of European birth, are engaged in making light play its proper part in the creation of scenes truly beautiful and wholly expressive of the mood to be portrayed.

In the late 1890's, Adolphe Appia invented the phrase "plastic lighting". His theory is that actors and settings should be three-dimensional, that they should appear to possess thickness, as well as length and breadth. This "plastic"

effect is to result from the skilful manipulation of lights and shadows. In DIE MUSIK UND DIE INSCIENIERUNG he explains his method, but the book unfortunately is so full of such technical material that it means little to the average reader. Appia produced Wagner's operas with the idea of enhancing the mood and atmosphere of the music by light and color, by flooding each scene with the degree of light and hue of color most appropriate to it. He is among the first to see the great untouched possibilities of light as a medium of beauty and, along with Gordon Craig, Joseph Urban, Leon Bakst, and Max Reinhardt, has been the means of bringing a new glamor and a new glory to stage production.

The first attempt at decorative lighting of which we have any record was set down by Valerius Maximus in 78 B. C. He states that over the orchestra and the pit of the Greek and Roman stages were hung awnings of red, yellow, and blue, thru which the sun shone, bathing the players in soft-hued light. From 1200 to 1400 A.D. came the first performances after the sun had set. Then cressets, which were crudely woven iron baskets filled with blazing pine knots and pitch and mounted on poles, furnished the illumination. In 1452 parchments record the use of candelabra on the stage.

Sebastian Serlio, an Italian theatre-worker of the sixteenth century, is credited with originating colored stage

lighting. In 1551 he placed candles behind bottles which were filled with red and blue liquids. and for reflectors set bright basins behind the candles. An Italian producer, Nicola Sabbatini, is thought to have first used footlights about 1620. Behind an upright board at the front of the stage, he set rows of oil lamps. In the next century, Battista Piranesi who loved bold lights and shadows found that by lighting the back part of the stage and keeping the front portion dark the semblance of reality was produced.

Kerosene lamps were invented in France in 1783. To vary the lighting effects, small screens were pushed out before or pulled away from the lamps by stage hands using long poles. In 1803 at the Lyceum Theatre in London, open flame gas burners were first employed. Electricity made its first appearance in the theatre in 1846 when the rays of an electric arc light were thrown upon the back of the stage at the Paris Opera House to represent the rising sun. In 1879 came Edison's invention of the incandescent electric lamp which still remains the means of present-day illumination.

There are various methods of obtaining colored lighting effects. One, quite impracticable for the modern stage, is the color-organ. Barnum in his circus exhibited a simple

form of this which had been invented by Bishop. In London, Wallace Rimington, who attempted somewhat unsuccessfully to prove that a psychological connection exists between music and color, also has an organ much like Bishop's. Thomas Wilfred's instrument which he calls the Clavilux (or color by keys) is capable of more variations than its predecessors. An organ-like box with several banks of keys and rows of numbered and lettered stops contains basic white light which is broken into its parts and then thrown thru shutters in the organ to a screen. Robert Edmond Jones has said that the only satisfactory light he has ever seen has come from a similar organ made by Klein. As yet, however, no form of prismatic lighting can satisfactorily be employed for stage purposes. We must rely for our effects on the incandescent lamp and the various means of producing colored rays.

The Fortuny system of lighting, named for its inventor and extensively used in Germany, is an exceedingly simple device consisting of a powerful arc lamp and lengths of silk of red, yellow, blue, white, and black. These pieces of silk are placed in a frame before the arc lamp. By laying one piece over another any combinations of colors is possible. To give tinted light, the white silk is added. For shades, the black piece is introduced.

This system requires an elaborate set of wires and operators with a true artistic sense. Four or five arc lights, each with its own set of silks and its own operator, are necessary for the average stage. For this reason, most directors of religious pageantry will not find it a practical method, though modifications of it may be worked out with spot and bunch lights.

Other color media are glass, colorine, gelatine, transolene, and cellophane. Each has its good and its bad points. Colored glass of spectral purity is both difficult to find and expensive. It is manufactured in few colors besides red, blue, green, and amber, but it keeps its color well and is destroyed only by breaking. Silk is costly, impermanent and impure. It does not reflect or transmit light as well as most other media. It can, of course, be obtained in any hue desired. Colorine, or lamp dip, for staining bulbs has the disadvantage of burning off quickly on lamps of more than fifty watts. Gelatine, which comes in good-sized sheets and in a variety of colors, is easily affected. It may fade before a hot lamp, break if touched, bulge in high humidity, shrink on heating, or split if stretched tightly in a frame. The large number of colors available and its moderate price are its chief recommendations.

Transolene, a newer product than gelatine and much like it in appearance, is harmed neither by heat nor by moisture, nor will it crack on being twisted or bent. Cellophane, another recent article similar to gelatine, now comes in many hues, tints and shades. It seems safe to say that glass and gelatine are at present the most commonly used of all color media.

There are five general types of lights for stage purposes; spotlights, footlights, borderlights, and portable strip and bunch lights. For color effects, strips, foots, and borders are supplied with lamps in red, amber, blue, and white. Each color is on its own circuit, thus making it possible to dim, heighten, or turn out one set of bulbs without changing the brilliancy of its neighbors. For simple lighting, a combination of amber and white is often used. (1) Krows suggests the proportion of three amber lights to one of white. Another director uses three white lamps to one of amber and still another prefers a mixture of amber and straw-color. A combination of two white lamps plus one of red and one of blue will produce a more elaborate effect. According (2) to Krows, red is more often used in strips and bunches than in foots, which are largely white and amber with a few blues and possibly a limited number of reds. Borders are for the most part white with a few ambers and blues. Selden and Sellman recommend foots and borders in blue, green, red, and clear.

(1) Krows, PLAY PRODUCTION IN AMERICA, p. 210

(2) Ibid, p. 214

Early morning light is cold white while that of the noonday sun has a tint of yellow. Pink and red suggest the setting sun. The tungsten gas-filled lamp is most like sunlight at noon, but it contains so few violet, blue, and blue-green wavelengths that when dimmed almost to its lowest point it sends out only orange and red. Morning light should come from a fairly high point on one side of the stage, afternoon light from a lower point on the opposite side. For moonlight, a combination of blue and white, with the latter predominating, is ordinarily used. Moonbeams may be suggested by steel-blue or blue-green shafts of light pouring across the stage from a high point. Shadows must be created by properly arranged lights, never by painting on the scenery. Ordinarily, tints in color media are preferable to spectral hues for the former allow white light as well as colored to pass thru them. The glow of a fireplace may come from red and amber lamps, from white lamps covered with red and amber paper or gelatine, or from a group of white lamps under lumps of red, amber, and black glass. One may build a climax of light by using less color or a cooler color at the beginning and gradually changing to warmer hues as the pageant progresses.

Costumes for a pageant must be chosen and tried out under the same colors of lights as those to be used in the

production. One director suggests that the dye-room where materials are being dipped should be illuminated with the hues called for in the lighting plot. The fabric of a garment, its texture, its coefficient of reflection, its hue, must all be considered in choosing costumes for stage purposes. Lighting must emphasize the costumes which in general should be brighter than either the scenery or the properties and it should also cause the raiment of important characters to stand out more clearly than that of persons in subordinate parts.

As we noted in Chevreul's table, a color is more intense when illuminated by its own hue and dulled when lighted by its complementary. Throwing two complementaries upon a costume makes it more striking for its high lights will be in the original hue of the gown, since two complementaries make white, while the shadows on one side will be in one color and those on the opposite side will be in the other color used. So, two groups of floodlights in different colors and on opposite sides of the stage will be most effective on draperies. In well-lighted scenes, costumes may be in the saturated hues and shades. In dimly-lighted scenes tints are preferable. Otherwise, there will be insufficient contrast between the costumes and their background.

Makeup is materially affected by the light which shines upon it. One's complexion grows yellowish and loses its natural coloring under artificial illumination. Tints of light such as pink, violet (or surprise pink), steel or daylight blue, straw, are kind to rouge. A new gelatine called flesh or natural is very acceptable and is also good for lighting interiors. Blue light on heavy makeup gives the wearer black lips and black spots on either cheek. Under red light, no rouge is visible. Green light is ghastly and should never be used except to produce an effect of horror. In the FREIBURG PASSION PLAY the scene of Judas' remorse is unlighted save by a single shaft of green light which falls across the face of Judas as he crouches in agony of spirit beside the garden well. Here the use of green is justified for the scene leaves with the beholder an unforgettable impression.

Though scenery must never receive direct light, it is still modified by the reflected illumination cast upon it. For instance, a gray background made of spatterings of red, blue, and green may become any one of these three colors. Red light upon the stage blots out the blue and green and creates a red background. In the same way, blue or green rays bring into being a blue or green setting. Experiments have shown that one can change a brilliant summer scene to

one of wintry barrenness simply by playing upon the stage colors which blot out all the former glory and leave only cold bleakness. Actors, too, can be made to appear and disappear instantly. A New York ballroom may be turned into a forest and gorgeous evening gown become the garments of semi-civilization merely by a change in the character of the lighting.

Alexander Stroble, a Hungarian chemist in New York, has perfected a magical black light which makes a stage full of people immediately appear empty. Stroble is now working on a play whereby ultra-violet light alone shall not only illumine the theatre and lobby but shall do away with all intermissions by bringing about all necessary changes of scenery and costumes. Newer knowledge of chemistry, physics, and electricity, aided by the experiments already made by such men as these here mentioned should make the stage of the future an even more fascinating and compelling place than we have yet found it to be.

SUMMARY

It has been said that before a man knows how a house should be built he must first build one himself. So it is apparently with A. M. theses. One must choose at least one subject and attempt its thorough exposition before he discovers that he has taken a topic far too inclusive for the scope of one paper. The proper treatment of this particular subject might well be a volume by itself.

The writer, however inadequately, has tried to deal with certain scientific, historical, and practical phases or color, keeping in mind the questions which might be raised by the pageantry director who must solve the color problems which constantly arise. The first section includes a definition of color with a statement of its qualities and of the principles which guide its arrangement into pleasing combinations. The next section endeavors to trace the beginnings of symbolic color and lists the ecclesiastical and secular meanings given to each spectrum color thru the centuries.

The director may have occasion to ask what colors were used in medieval worship and why those particular hues found place in the liturgy of the church. Then he must turn to the researches of such men as Powell, Hope, and Legg to find answer to his inquiry. Again, he may wish to know the part color had in the ancient mystery

plays. Was it used mainly for symbolism, for decorative value, or for historical accuracy? Did the directors of those early days concern themselves with carefully arranged color plots? The fourth division is an attempt to answer these questions as definitely as records will permit. There follow certain general considerations of stage costuming together with the colors peculiar to each nation of Biblical times and of missionary interest. The creation of a set dignified and beautiful in itself and suggestive of the mood of the scene to be portrayed is the central thought of the section on STAGE SETTINGS. And finally comes a discussion of that most puzzling and difficult phase of the average director's problems, that of lighting. Types of lighting, means of producing different colored effects, color media, and the effect of each light color upon materials of various hues has been dealt with.

A subject such as this is at once the delight and the despair of the person choosing it. It is a positive delight because both color and the stage possess a fascination beyond words. It fills one with despair for it reaches out in so many different directions and embraces so wide a field that the more one studies it the less he appears to know about it and the further he still has to travel. And the end is never in sight! But that after all, we suppose, is the process that makes many of us into students and a very few of us into scholars.

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1 1719 02576 9052